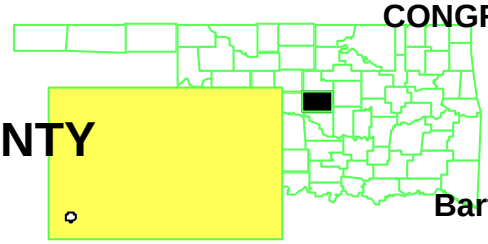
FOURTH STREET ABANDONED REFINERY OKLAHOMA COUNTY OKLAHOMA

EPA REGION 6

CONGRESSIONAL DISTRICT 5



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EPA ID# OKD980696470
Site ID: 0601297

Last Updated: December 2012

Background

The Fourth Street Site is located at 2200 Block NE 4th Street, Oklahoma City, Oklahoma. The site is bounded to the south by the Union Pacific Railroad tracks, to the north by Northeast Fourth Street, and to the east by Interstate 35. Martin Luther King Boulevard lies on the west side. Active industrial facilities also lie adjacent to the midnorthern portion of the site. The Fourth Street site extends over approximately 27 acres. An active industrial facility is currently operating on the westernmost tract, which is part of the original refinery property, but is now owned and operated by a separate individual. This tract is referred to as the Pipe Storage Yard. The Fourth Street site collected, stored, and re-refined used oils and distributed the recycled product. Refinery operations at the Fourth Street site apparently recycled used oils by the use of sulfuric acid in clarification of the used oils. Sludges generated by the reclamation process were disposed in on-site impoundments. The refinery was active in the early 1940's through to the early 1960's.

Although industrial areas surround the site, the land use within a 1-mile radius of the site is mixed industrial and residential. A small neighborhood is located about ¼ mile to the northwest. Four schools and two recreational facilities are located within a 1-mile radius of the sites. Within a 1-mile radius of the sites are many commercial and small industrial facilities. 1,931 people live within one mile of the site. Part of the Fourth Street site is currently being used as a pipe storage yard. The rest of the Fourth Street site is not being re-used at this time. The site is owned by private land owners.

The Fourth Street site was found to be contaminated with metals and organic contaminants in the soil and ground water. Also it contained acidic sludges found in on-site lagoons or pits. Most of the equipment was contaminated to various degrees. The chemicals of concern (COCs) for the Source Control OU included polycyclic aromatic hydrocarbons, chlorinated hydrocarbons and polychlorinated biphenyls, alkyl benzenes, ketones, lead, arsenic, and antimony. Lead was considered the primary COC. The ground water OU under the sites was contaminated with similar COCs to the Source Control OU

In 1989 a fence was constructed and warning signs posted around areas of contamination for the Fourth

Street site.

The ROD for the Fourth Street Source Control OU was signed on September 28, 1992. The remedy selected included Neutralization, Excavation, On-site Stabilization, and Off-site Landfill Disposal. The ROD for Groundwater OU was signed on September 30, 1993. The ROD called for groundwater monitoring to ensure that contaminants didn't migrate into the lower aquifer.

Approximately 143,465 cubic yards of waste material were hauled and disposed at the East Oak Landfill.

The site was deleted from the National Priorities List on August 21, 2008.

Current Status

The Oklahoma Department of Environmental Quality (ODEQ) has completed several sampling events of the groundwater. Results show that natural attenuation is taking place through the generation or transformation of daughter products from the original contaminants. Further investigations conducted by ODEQ and the U.S. Geological Survey (USGS) confirmed that soil conditions are adequate to support the natural attenuation process and the process is taking place. The ODEQ and the USGS have noted that the high levels of sodium, total dissolved solids and chlorides (saltwater or brine) in waters of the upper aquifer make this a Class III or non-potable aquifer.

The ODEQ and EPA continue to monitor the site by conducting Five-Year reviews to verify that the remedy is protective of human health and the environment. The last review was completed in May 2007. The ODEQ submitted the draft report for the 2012 review and the report was finalized in May 2012.

In 2008 the ODEQ and EPA prepared a deletion package for this site. A Notice of Intent to Delete was published in the Federal Register on June 13, 2008. The public comment period closed July 14, 2008. One adverse comment was received, a withdrawal notice of the deletion was published in the Federal Register and EPA prepared a response to comments. The site was deleted August 21, 2008.

Benefits

- Cleanup of the Fourth Street Site mitigated 42,000 cubic yards of contaminated sludge, soil and sediments that if not remediated, would have been a potential source of contamination to the nearby minority community. Cleanup of the source contamination prevents future migration of contaminants to the ground water.
- Approximately 70,000 cubic yards of treated acidic waste material were permitted, hauled and disposed at the East Oak Landfill.
- Since all contaminants above health base levels, for industrial standards, have been removed from the site, the property can now be developed for non-residential uses.

National Priorities Listing (NPL) History

Proposed Date June 24, 1988
Final Date March 31, 1989

Location: Northeast Oklahoma City, Oklahoma
Immediately southeast of the intersection of NE 4th Street and Eastern Avenue (Martin Luther King Blvd.), 2200 Fourth Street, bordered by the Atchison, Topeka and Santa Fe (ATSF) Railroad track to the south.

Population: Approximately 1,931 people live within one mile of the site.

Approximately 20,520 people live within two miles of the site.

Setting: About one-half mile south of Douglas High School, one-quarter mile southeast of a residential area.
Located in an industrial area, directly northeast of Double Eagle Refining Superfund site. One-half mile southwest of Douglas High School, one-quarter mile south of a residential area.

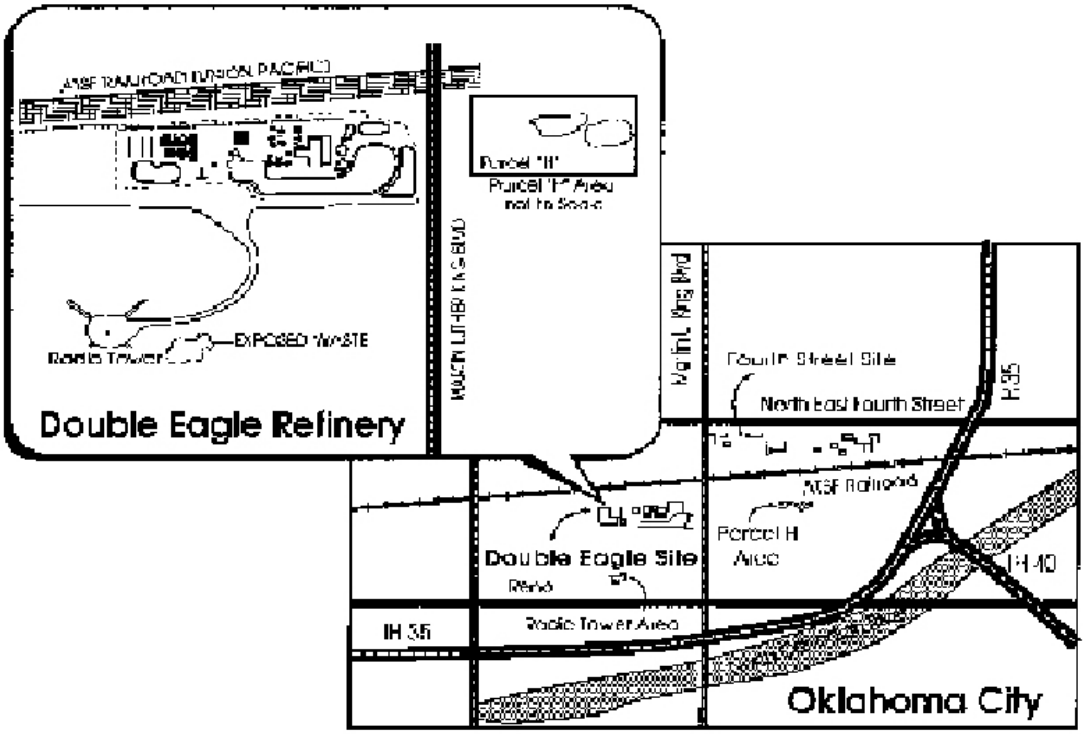
Photos: Site Photo 2007

Principal Pollutants:

Lead	to 24,500 ppm (sludge)
Chrysene	to 47 ppm (sludge)
Phenanthrene	to 120 ppm (soil/sediments)
Naphthalene	to 220 ppm (soil/sediments)

(ppm = Parts Per Million)

Site Map and Diagram



Health Considerations

- Potential for ingestion of contaminated soils by workers on-site.

Record of Decision

Signed:
September 28, 1992 (Source), OU No. 1
September 30, 1993 (Ground Water), OU No. 2

The selected Source Control remedy includes on-site stabilization and off-site landfill disposal at a facility permitted for non-hazardous waste.

Other Remedies Considered	Reason Not Chosen
1. No Action/Limited	Will not address site risk
2. On-site stabilization/Capping	Not considered permanent due to possible failure of cap
3. On-site stabilization/Onsite Disposal	The State preferred lower cost off- site remedy
4. On-site incineration	High cost, would not address primary risk from metals.
5. Off-site incineration	Same as onsite incineration

The selected ground water remedy involves monitoring to ensure that contaminants don't migrate into the lower aquifer.

Other Remedies Considered	Reason Not Chosen
1. No Action	Will not provide for protection of lower ground water.
2. Pump and Treat	Will not reduce overall risk due to possible off-site sources and the ground water is not useable due to high dissolved solids.

Contacts

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